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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/540,235

DATE: 06/14/2000
TIME: 08:57:55

Input Set : N:\COPIES\PTOIES.txt
Output Set: N:\CRF3\06142000\I540235.raw

1 <110> APPLICANT: Fisher, Dane K.
2 Lalgudi, Raghunath V.
4 <120> TITLE OF INVENTION: Nucleic Acid Sequences from Cyanidium caldarium and Uses
5 thereof
7 <130> FILE REFERENCE: 38-21(15749)B
9 <140> CURRENT APPLICATION NUMBER: US/09/540,235
C--> 9 <141> CURRENT FILING DATE: 2000-04-03
9 <150> PRIOR APPLICATION NUMBER: 60/128,439
11 <151> PRIOR FILING DATE: 1999-04-06
13 <160> NUMBER OF SEQ ID NOS: 5674
15 <210> SEQ ID NO: 1
16 <211> LENGTH: 408
17 <212> TYPE: DNA
18 <213> ORGANISM: Cyanidium caldarium
20 <223> OTHER INFORMATION: Clone ID: LIB190-001-Q1-E1-A12
22 <400> SEQUENCE: 1
24 acggcgtcga ttgagaatta cgagttgctt tcgagtctcg gctgtgggtt catattttc 60
26 tttgcgtaaa gcgtttgggg ctgttatcg tcgcatgaa gtattccaaa gttgtatcg 120
28 cgtctagaag aaagcagagg aaagcatact ttcaaggacc atcttcgttgcgacgaaatc 180
30 tcatgatgc acccttgc aagaaacttgcatgaaata cagcgttgcgt tctttaccta 240
32 ttcaacgtt ttatcgaaag aaatatcgga tacatatcgaa gagatgttgc 300
34 ttacaacgtt ttatcgaaag aaatatcgga tacatatcgaa gagatgttgc 360
36 cgaatggat gactgttaccc ttggaaatac atccatctaa tgggttta 408
39 <210> SEQ ID NO: 2
40 <211> LENGTH: 73
41 <212> TYPE: DNA
42 <213> ORGANISM: Cyanidium caldarium
44 <223> OTHER INFORMATION: Clone ID: LIB190-001-Q1-E1-A3
46 <400> SEQUENCE: 2
48 agggcgcgtt cataatagaa atccgaaagg agttagaagaa aagagagaga agaaagagaa 60
50 gaagagaaaaa ggc 73
53 <210> SEQ ID NO: 3
54 <211> LENGTH: 415
55 <212> TYPE: DNA
56 <213> ORGANISM: Cyanidium caldarium
58 <223> OTHER INFORMATION: Clone ID: LIB190-001-Q1-E1-A5
60 <400> SEQUENCE: 3
62 ggcggcgtca taatagaaat ccgaaaggag tagaagaaaa gagagagaag aaagaaaaaga 60
64 agagaaaaagc cgtactgaag accgacacag gtactcgagg agaaaggaga cccaaattaa 120
66 ggtgagagaa tggacgataa ggaacttaggc aaaaggatat ggtatctcg gttagaacata 180
68 taaaagaagc agcaccgact gtttagcaaa aacacagcac tctgcagaaa agagaaaaatg 240
70 taaaatgtatag agtgcgttgc ctggcaataa gttagagaaga aatcgatgaa agtggaaagcg 300
72 agtggatggatggatataa gaatggcggt ccttaactgtt agatccaa ggtggcgaa 360
74 taaaatagacg ttggaaaggc gtcagatgtt aaaggagaaa cgatgttgc actgt 415
77 <210> SEQ ID NO: 4
78 <211> LENGTH: 350
79 <212> TYPE: DNA

ENTERED

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80 <213> ORGANISM: Cyanidium caldarium
 82 <223> OTHER INFORMATION: Clone ID: LIB190-001-Q1-E1-A6
 84 <400> SEQUENCE: 4
 86 gagggaaaaga agatcaagga agtaagagta agagaaggag taatgtgaat gaaagcagga 60
 88 aagtatttga agaagagagt gtaaagcgcg tacctttgc ataatgtccc agcagtgaa 120
 90 agaggaaagca taaaaaaaaaa agaactaagc aaaaagaaaaa aaaaacagca gaaaaaaaaat 180
 92 atgaaaaaaaaa caacaccaac agtaaaaaaaaa aaaacacacaac actcagcaaa aaaaaaaaaaa 240
 94 atgtaaaata aagaatgtga cgactgcca aaaaaaaaaa aaaaaggcgcg agcaccctga 300
 96 aaggactacta cctttaggagg tatacagaat gacggtacta actgtaaaaga 350
 99 <210> SEQ ID NO: 5
 100 <211> LENGTH: 413
 101 <212> TYPE: DNA
 102 <213> ORGANISM: Cyanidium caldarium
 104 <223> OTHER INFORMATION: Clone ID: LIB190-001-Q1-E1-A8
 106 <400> SEQUENCE: 5
 108 ctatgttattt aaccccttcta agaattgggt cctttgtgtt tgggtgttagct gcagggtttt 60
 110 gaagtgcctc aacggaccat cgtaaaagag aaaaaattttt aattttctaa attcacgagc 120
 112 gcaatgccaa aatttggcg tggaaagtgt aacttaagca actgaaaggg gaaattcccg 180
 114 ctcttacagg tgatccaggat caagatgggt tgaatcaattt ggaataaagat gtatatgtta 240
 116 caagtgcctt tggaaagaga gagatgtca tttgaataaa attagttttt ttcccaacaa 300
 118 aaaaaaaaaac aaaaaaaaaaa aaaaaaaaaaa aaaaaaaaaaa aaaaaaaaaaa aaataaaaaaa 360
 120 aaagaaaaagag ctgaaaaaaaaaa aatttagagt aaaaaaaaaa aaaaaaaaaaggg ggg 413
 123 <210> SEQ ID NO: 6
 124 <211> LENGTH: 410
 125 <212> TYPE: DNA
 126 <213> ORGANISM: Cyanidium caldarium
 128 <223> OTHER INFORMATION: Clone ID: LIB190-001-Q1-E1-A9
 130 <400> SEQUENCE: 6
 132 cccacgcgtc cgccccacgcg tccgccccacg cgtccgccta cgcgcgtccg 60
 134 cccacgcgtc cgatttttgtt caaaatttca caaagagata tcgatcctaa agatatccca 120
 136 agatgggtc atggagaaga agaattggga ttggcagaaat ctttttagtcg tgaaggcgtca 180
 138 gtcaatata tggatccacaa agaattggat gatttgcac tagtgaagca gttggcagag 240
 140 tctttgtgt tacctggcga ttatgggtat tctttgtaaa atgcactt gctatatcat 300
 142 acgcattgtgc tgcattggaa aaaggagttt ttgcgtcaac tgcattttt acaagaccac 360
 144 tccaaacatcatcgtggat agtcaacat ttccatttc atagttttt 410
 147 <210> SEQ ID NO: 7
 148 <211> LENGTH: 271
 149 <212> TYPE: DNA
 150 <213> ORGANISM: Cyanidium caldarium
 152 <223> OTHER INFORMATION: Clone ID: LIB190-001-Q1-E1-B11
 154 <400> SEQUENCE: 7
 156 cgaagatattt ctgcgcaccaaaaacgcatt ggaacacacgt agtgggttca atgttagctgg 60
 158 tcgatcattt attgtattgtt atccatcaacc ggagaaaaatg aaaaagaatg aggagaataa 120
 160 agttagaaag gtttttgta acgttagatgtatgtt gtttgcacca gttttggaaac 180
 162 tttgttagtca ttatcccgatggacgtatgtt gatagtctt ggaatgactc cagcgttgg 240
 164 agaaggctat taaaagtgtat gttttttttt g 271
 167 <210> SEQ ID NO: 8
 168 <211> LENGTH: 433
 169 <212> TYPE: DNA

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262 atatcgtaat atgaagagaa agaaggaaca ttctgcattt tataaagtca ataatgggaa 300
 264 attcggtcta aaaatttggc ttcgtgagga agccaatgcc aagatggagg acggagaaac 360
 266 aaacaagaaa actccatcaag gcaccgtatc tga 393
 269 <210> SEQ ID NO: 12
 270 <211> LENGTH: 399
 271 <212> TYPE: DNA
 272 <213> ORGANISM: Cyanidium caldarium
 274 <223> OTHER INFORMATION: unsure at all n locations
 275 <223> OTHER INFORMATION: Clone ID: LIB190-001-Q1-E1-B9
 277 <400> SEQUENCE: 12
 279 cccacgcgtc cgccggacgcg tggatacag tttcccttcac ttgtggttgg gattgttgcg 60
 281 caatgttcaa gtcgtctatc ttattttcca tctatttcaa atatccacgc tgcagtagct 120
 283 cgggtcaaac aaacgcagca cgaacaatataat ggaacacctt attatcaacg tatcaacaga 180
 285 gactttatcc cggaaatgtcc gttgtatattc ggtgggtcac ttacaaaac acgaaagtctgt 240
 287 acacttcaag tataactaagt ttcaagtctt cctattccac acaaggagga gacacggagg 300
 289 gcaagataacc tcattctaaa gatataaag gagaacctca gtccgcttca gatgttacg 360
 W--> 291 acaagacttg ggctaaagaa aacttcanaag acacttctg 399
 294 <210> SEQ ID NO: 13
 295 <211> LENGTH: 454
 296 <212> TYPE: DNA
 297 <213> ORGANISM: Cyanidium caldarium
 299 <223> OTHER INFORMATION: Clone ID: LIB190-001-Q1-E1-C1
 301 <400> SEQUENCE: 13
 303 cccacgcgtc cgccggcgtc cataatagaa atccgaaagg agtagaaagaa aagagagaga 60
 305 agaaagaaaaaa gaagaaaaaa qcgcgtactga agacccgacac aggtactcga ggagaaagga 120
 307 gacccaaatt aaggtagag aatggacgat aaggaacttag gcaaaaggat atggtatctg 180
 309 cggtagaaca tatgaaagaa gcacgcacccga ctgttttagca aaaacacagc actctgcaga 240
 311 aaagagaaaaaa tgtaaaggat agagtgtcgc gcctgcacaa tagtagagaa gaaatcgatg 300
 313 aaagtagaaag cgataaaaag atgaggatata gagaatggcg gtcctaaacag taaggatcca 360
 315 aaggttagcga agttaataga cgtttgaaag gcttccagta tgaaaggaga aacgagtgta 420
 317 gcactgtcta gtcgtccaaac tcagcgaac acgca 454
 320 <210> SEQ ID NO: 14
 321 <211> LENGTH: 354
 322 <212> TYPE: DNA
 323 <213> ORGANISM: Cyanidium caldarium
 325 <223> OTHER INFORMATION: Clone ID: LIB190-001-Q1-E1-C10
 327 <400> SEQUENCE: 14
 329 acccacgcgtc ccgggggggg tacaaggact ttgttattccct tggttacttgc tgcccggtgc 60
 331 aagataagct cggtggaaatg tacgggtac cggatataca accgtactcga gaataaccgg 120
 333 ctccaaacac ggcacataca actaatatag ttatggcg tggggggaa aaaaatgttgc 180
 335 ggaacttaatt tacccggagga aaaagaactc gacaggagct ttgtcgaaat gatgttgcgt 240
 337 taatttcaaca cgtatatagtc gcacgttctt cagatataca agttgtcgaa acactattga 300
 339 tacctccaaat tggcatatt tcaaaacaaa agtttgcgtc cctgtttgttgc 354
 342 <210> SEQ ID NO: 15
 343 <211> LENGTH: 386
 344 <212> TYPE: DNA
 345 <213> ORGANISM: Cyanidium caldarium
 347 <223> OTHER INFORMATION: Clone ID: LIB190-001-Q1-E1-C11
 349 <400> SEQUENCE: 15

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY
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Input Set : N:\COPIES\PTOIES.txt
Output Set: N:\Crf3\06142000\I540235.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:291 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:12
L:291 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:291 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:291 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:12
L:448 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:19
L:448 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:19
L:448 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:19
L:448 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:19
L:629 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:19
L:629 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:19
L:629 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:19
L:629 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:19
L:704 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:26
L:704 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:26
L:704 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:26
L:704 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:26
L:779 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:29
L:779 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:29
L:779 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:29
L:779 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:29
L:966 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:40
L:966 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:40
L:966 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:40
L:966 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:40
L:1109 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:46
L:1109 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:46
L:1109 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:46
L:1109 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:46
L:1204 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:50
L:1204 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:50
L:1204 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:50
L:1221 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:51
L:1221 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:51
L:1221 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:51
L:1221 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:51
L:1344 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:56
L:1344 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:56
L:1344 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:56
L:1344 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:56
L:1346 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:56
L:1346 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:56
L:1346 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:56
M:340 Repeated in SeqNo=56
L:1352 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:56
L:1352 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:56

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L:1352 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:56
 L:1356 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:56
 L:1356 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:56
 L:1356 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:56
 L:1539 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:64
 L:1539 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:64
 L:1539 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:64
 L:1539 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:64
 L:1558 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:65
 L:1558 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:65
 L:1558 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:65
 L:1558 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:65
 L:1591 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:66
 L:1591 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:66
 L:1591 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:66
 L:1591 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:66
 L:1604 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:67
 L:1604 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:67
 L:1604 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:67
 L:1655 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:69
 L:1690 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:70
 L:1751 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:73
 L:1894 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:79
 L:2041 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:85
 L:2108 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:88
 M:340 Repeated in SeqNo=88
 L:2133 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:89
 L:2206 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:92
 L:2375 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:99
 L:2488 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:104
 L:2933 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:123
 L:3392 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:143
 M:340 Repeated in SeqNo=143
 L:4097 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:172
 L:4588 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:193
 L:4873 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:206
 L:5096 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:216
 M:340 Repeated in SeqNo=216
 L:5447 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:231
 M:340 Repeated in SeqNo=231
 L:5520 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:234
 L:5585 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:237
 L:5878 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:249
 L:6027 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:255
 L:6120 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:259
 L:6443 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:273
 L:6544 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:277
 L:6599 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:279
 L:6810 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:288

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L:6911 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:292
L:7118 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:301
L:7167 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:303
M:340 Repeated in SeqNo=303
L:7214 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:305